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EXAMINER	
CHEA, PHILIP J	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/070,339	FEICK ET AL.	
	Examiner	Art Unit	
	PHILIP J. CHEA	2453	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 December 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14 and 16-54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 16-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/2/08; 8/25/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to an Amendment filed December 4, 2008. Claims 1-14 and 16-54 are currently pending, of which claims 52-54 are new. Any rejection not set forth below has been overcome by the current Amendment.

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 8/25/08 and 10/02/08 was filed after the mailing date of the Final Rejection on 7/31/08. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

2. Claim 51 is objected to because of the following informalities: The phrase "configured to instruct" raises a question as to whether the step following the "configured to instruct" is positively recited. The language prior to this amendment using "instructs" is acceptable. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-14,16-18,21-22,24-31,34-49,53-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen as applied to claim 11 above, and further in view of Kompella et al. (US 5,892,754), herein referred to as Kompella.

As per claims 9,1,4,39, Chen discloses a method for communicating data within measurement traffic, the method comprising:

sending a first plurality of one or more measurement packets over a first plurality of one or more paths, each of the first plurality of one or more paths traversing at least a portion of an internetwork (see column 7, lines 6-16, *where a plurality of management packets (i.e. measurement packets) are sent over a network to measure performance parameters such as packet delay and packet loss rate)*, and each of the first plurality of one or more measurement packets including:

information for a receiver of the measurement packet to compute measurements of performance characteristics of at least a portion of the path of the measurement packet (see column 7, lines 17-27, *where switches and routers that receive the measurement packet can use the management packet to compute performance characteristics such as packet delay and packet loss)*, data including one or more of measurement statistics, a generic communication channel, network information (see column 7, lines 17-27, *where data including at least network information (e.g. packet delay and packet loss) is collected)*,

receiving a second plurality of one or more measurement packets over a second plurality of one or more paths, each of the second plurality of one or more paths traversing at least a portion of an internetwork (see column 7, lines 6-8, *where the measurement packets can be used to measure end-to-end QOS experienced by a user along any virtual connection implying a second plurality of one or more measurements packets and a second plurality of one or more paths (i.e. a different measurement packet along a different virtual path))*, and each of the second plurality of one or more measurement packets including:

information for a receiver of the measurement packet to compute measurements of performance characteristics of at least a portion of the path of the measurement packet (see column 7, lines 17-27, *where a second path for a second user can include switches and routers that receive the measurement packet can use the management packet to compute performance characteristics such as packet delay and packet loss)*, and data including one or more of measurement statistics, a generic communication channel, network information, and control data directing a receiver of the measurement packet to change one or more configuration parameters of the receiver (see column 7, lines 17-27, *where data including at least network information (e.g. packet delay and packet loss) is collected)*.

Although the system disclosed by Chen shows substantial features of the claimed invention (discussed above), it fails to disclose control data directing a receiver to change one or more configuration parameters of the receiver.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Chen, as evidenced by Kompella.

In an analogous art, Kompella discloses a flow control system for packet transmission networks where changes in control are responsive to changes in the transmission parameters of the network, measured in the network and transmitted to the user application (see Abstract). Kompella further discloses control data directing a receiver to change one or more configuration parameters of the receiver (see column 8, lines 40-50, *where a QoS parameter violation event signal is received by a user application, and the event signal determines whether or not the transmission parameters (i.e. configuration parameters) of the user application should be changed).*

Given the teaching of Kompella, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Chen by employing control data to change configuration parameters, such as disclosed by Kompella, in order to adapt the configuration parameters to the changing conditions of the network to deliver the data more reliably.

As per claims 2,5,10, Chen further discloses that the measurements of performance characteristics include one-way measurements (see Fig. 2, *showing packet delay in a one-way direction (i.e. packet travels from node 1, to node 2, to node 3*).

As per claims 3,6,11, Chen further discloses that the data includes measurement statistics (see column 7, lines 50-57, *where the accumulation of delay and packet loss are considered measurement statistics*).

As per claims 7,21, Chen further discloses analyzing of the measurement packet based on a dynamic algorithm, the dynamic algorithm computing computed statistics on one or more of the measurements of performance characteristics of at least a portion of the path of the measurement packet (see column 7, lines 50-64, *where additional codes can be defined for dynamically monitoring other performance parameters).*

As per claims 8,26, Chen further discloses that a subset of the plurality of one or more paths is selected based at least in part on at least one of: one or more of the measurement statistics from the measurement packet and one or more of the computed statistics (see column 2, lines 5-14, *where measurement statistics can allow providers to select a subset of one of the paths to diagnose).*

As per claim 12, Kompella further discloses that one of the measurement statistics is at least partly responsive to jitter (see column 7, lines 44-49).

As per claim 13, Chen further discloses that the measurement statistics are at least partly responsive to delay (see column 7, lines 50-57).

As per claim 14, Chen further discloses that the measurement statistics are at least partly responsive to loss (see column 7, lines 50-57).

As per claim 16, Chen further discloses that the data includes a generic communication channel (see column 9, lines 58-62).

As per claim 17, Chen further discloses that the data includes network information (see column 7, lines 17-27).

As per claim 18, Chen in view of Kompella further disclose that the data is embedded in multiple measurement packets (see Chen, Figs. 2,3,4) that are sent over multiple paths for improved communication performance, including redundancy and shorter transmission time (see Kompella column 5, lines 21-34, *where redundancy and possible shorter transmission time are implied with the use of multiple paths).*

As per claim 22, Kompella further discloses that the algorithm computes averages of the measurements, including at least one of a moving average, an average based on the Robbins-Moro estimator, a window-based average, and a bucket-based average (see column 5, lines 62-65, describing a window based average).

As per claim 24, Chen further discloses that the computed statistics are at least partly recomputed upon the arrival of every measurement packet (see column 7, lines 50-57).

As per claim 25, Chen further discloses that the computed statistics are at least partly on measurement statistics from the measurement packet (see column 7, lines 6-16).

As per claim 27, Chen further discloses that the subset of the plurality of one or more paths is based at least partly on the position of paths in a ranking (see column 2, lines 5-14, *where the paths that are troubled will be diagnosed before those paths that are working fine; that is the troubled paths are ranked higher than the working paths)*.

As per claim 28, Chen further discloses that the ranking is at least partly based on one or more of the measurement statistics included as data in the measurement packet (see column 7, lines 6-16).

As per claim 29, Kompella further discloses that the subset of the plurality of one or more paths is based at least partly on a probability associated with each path of the plurality of one or more paths (see column 5, lines 60-65 and column 6, lines 20-25, *where the selected paths are based on a probability because the QOS parameters are averaged, which implies a probable connection to satisfy the QOS*).

As per claim 30, Chen in view of Kompella further discloses that the probability of each path of the plurality of one or more paths is at least partly based on one or more of the measurement statistics included as data in the measurement packet (see Kompella column 5, lines 62-65, describing the collection of measurement statistics and Chen column 7, lines 17-27, describing the use of a measurement packet).

As per claim 31, Chen further discloses that the subset of plurality of one or more paths is based at least partly on applying one or more thresholds to at least one of the measurements statistics included as data in the measurement packet (see column 1, lines 50-55, *where a QOS threshold is checked to insure users maintain a certain QOS agreement)*.

As per claim 34, Chen further discloses that the plurality of one or more paths is at least partly implemented with at least one of a frame relay PVC, an ATM PVC, and MPLS (see column 1, lines 29-32).

As per claim 35, Chen further discloses that the internetwork is a plurality of one or more subnetworks, including at least one of a plurality of one or more VPNs; an overlay network; a plurality of one or more BGP autonomous systems; a plurality of one or more local area networks; a plurality of one or more metropolitan area networks; and a plurality of one or more wide area networks (see column 1, lines 29-32).

As per claim 36, Chen further discloses that the measurement packet sizes and times between measurement packets simulate the traffic pattern of a plurality of one or more applications (see column 1, lines 51-58).

As per claim 37, Chen further discloses that the plurality of one or more applications includes voice applications (see column 1, lines 51-58).

As per claim 38, Chen further discloses that the plurality of one or more applications includes video applications (see column 1, lines 24-27).

As per claim 40, Chen further discloses that the plurality of one or more devices includes a first sub-plurality of one or more devices, wherein the first sub-plurality of one or more devices sends one or more of the first plurality of one or more measurement packets (see Fig. 2, *showing how switches send the measurement packets).*

As per claim 41, Chen further discloses wherein the plurality of one or more devices includes a second sub-plurality of one or more devices, wherein the second sub-plurality of one or more devices receives one or more of a second plurality of one or more measurement packets over a second plurality of one or more paths, each of the second plurality of one or more paths traversing at least a portion of the internetwork (see column 7, lines 6-8, *where the measurement packets can be used to measure end-to-end QOS experienced by a user along any virtual connection implying a second plurality* of one or *more measurements packets and a second plurality* of one or *more paths (i.e. different user along a different path))*, each of the second plurality of one or more measurement packets including:

information for a receiver of the measurement packet to compute measurements of performance characteristics of at least a portion of the path of the measurement packet (see column 7, lines 17-27, *where switches and routers that receive the measurement packet can use the management packet to compute performance characteristics such as packet delay and packet loss),*

data including one or more of measurement statistics, a generic communication channel, network information, and control data directing a receiver of the measurement packet to change one or more configuration parameters of the receiver (see column 7, lines 17-27, *where data including at least network information (e.g. packet delay and packet loss) is collected).*

As per claims 42,45,47,49, Chen discloses that at least one of the first plurality of one or more measurement packets and at least one of the second plurality of one or more measurement packets are the same packet (see Fig. 2, showing packet measuring delay, where column 7, lines 6-8, *describes the measurement packets can be used to measure end-to-end QOS experienced by a user along any virtual connection implying a second plurality of one or more measurements packets and a second plurality of one or more paths (i.e. different user along a different path))*.

As per claim 43, Chen discloses that at least one of the plurality of one or more devices receives one or more of the first plurality of one or more measurement packets (see Fig. 2).

As per claim 44, Chen discloses that the plurality of one or more devices includes a first sub-plurality of one or more devices, wherein the first sub-plurality of one or more devices receives one or more of a second plurality of one or more measurement packets over a second plurality of one or more paths and sends one or more of the first plurality of one or more measurement packets, each of the second plurality of one or more paths traversing at least a portion of the internetwork (see column 7, lines 6-8, *where the measurement packets can be used to measure end-to-end QOS experienced by a user along any virtual connection implying a second plurality of one or more measurements packets and a second plurality of one or more paths (i.e. different user along a different path), furthermore some of the same devices are traversed considering the performance parameters go to the same performance monitoring system (see column 7, lines 8-10))*, each of the second plurality of one or more measurement packets including:

information for a receiver of the measurement packet to compute measurements of performance characteristics of at least a portion of the path of the measurement packet (see column 7, lines 17-27),

data including one or more of measurement statistics, a generic communication channel, network information, and control data directing a receiver of the measurement packet to change one or more configuration parameters of the receiver (see column 7, lines 17-27).

As per claim 46, Chen further discloses that the plurality of one or more devices includes a second sub-plurality of one or more devices, wherein the second sub-plurality of one or more devices sends one or more of the first plurality of one or more measurement packets (see Fig. 2, showing packet

measuring delay, where column 7, lines 6-8, *describes the measurement packets can be used to measure end-to-end QOS experienced by a user along any virtual connection implying a second plurality of one or more measurements packets and a second plurality of one or more paths (i.e. different user along a different path))*.

As per claim 48, Chen further discloses that the plurality of one or more devices includes a second sub-plurality of one or more devices, wherein the second sub-plurality of one or more devices receives one or more of the second plurality of one or more measurement packets (see Fig. 2, showing packet measuring delay, where column 7, lines 6-8, *describes the measurement packets can be used to measure end-to-end QOS experienced by a user along any virtual connection implying a second plurality of one or more measurements packets and a second plurality of one or more paths (i.e. different user along a different path))*.

As per claim 53, Chen-Kompella further disclose that sending and receiving are performed on a single device (see Chen column 7, lines 65-67, *describing how a switch sends and receives i.e. a packet arrives (receiving), and a packet departs (sending), configured to change the one or more configuration parameters in response to receiving control data (*see Kompella column 8, lines 40-50, *where control data changes one or more configuration parameters at a single device*). *It would be obvious to one of ordinary skill in the art that the principle of controlling a device for QoS reasons could be applied to a switch such as taught by Chen to control network characteristics such as bandwidth and jitter.*

As per claim 54, Chen-Kompella further disclose that the measurement statistics are at least partly responsive to jitter (see Kompella column 7, lines 44-49), delay and loss (see Chen column 7, lines 50-57).

5. Claims 19,23,32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen-Kompella as applied to claim 9 above, and further in view of Vaid et al. (US 6,078,953), herein referred to as Vaid.

As per claim 19, although the system disclosed by Chen-Kompella shows substantial features of the claimed invention (discussed above), it fails to disclose that the measurement packets are at least one of encrypted and digitally signed.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Chen-Kompella, as evidenced by Vaid.

In an analogous art, Vaid discloses a system that can receive packets and measure the quality of service related to those packets (see column 16, lines 18-21 and lines 29-38, *describing how incoming packets are measured based on measurement statistics*). Further showing that the measurement packets are at least one of encrypted and digitally signed (see column 17, lines 32-36, *where the packets can be using IPSEC which inherently suggests an encrypted packet*).

Given the teaching of Vaid, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Chen-Kompella by employing encrypted packets, such as disclosed by Vaid, in order to measure performance characteristics through firewalls.

As per claim 23, Vaid further discloses that the algorithm is at least partly specified through an external API (see column 12, lines 51-56, *showing that the measurement algorithm is partly specified though an API*).

As per claim 32, Vaid further discloses that the measurement packets at least partly rely on UDP (see column 17, lines 42-48).

As per claim 33, Vaid further discloses that at least one of the plurality of paths is at least partly implemented with at least one of a GRE tunnel and an IPSEC tunnel (see column 17, lines 32-36).

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen-Kompella applied to claim 9 above, and further in view of Ofeck et al. (US 6,385,198), herein referred to as Ofeck.

Although the system disclosed by Chen shows that a clock referred to by a sender of the measurement packet and a clock referred to by the receiver of the measurement packet are synchronized (see column 3, lines 27-38, *describing how synchronized clocks would allow an end-point to measure the*

a delay time), it fails to disclose the synchronization method including at least one or more of GPS, NTP, IRIG, and NIST).

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Chen-Kompella, as evidenced by Ofeck.

In an analogous art, Ofeck discloses a system for passing messages between switches (see Abstract), where the switches are synchronized using GPS (see column 3, lines 18-26).

Given the teaching of Ofeck, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Chen-Kompella by employing synchronization of routers using GPS, such as disclosed by Ofeck, in order to get a common time reference for switches.

7. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen-Kompella as applied to claim 1 above, and further in view of Breitbart et al. (US 6,963,914), herein referred to as Breitbart.

Although the system disclosed by Chen-Kompella shows substantial features of the claimed invention (discussed above), it fails to disclose measurement statistics that include delay and jitter averages that are combined into a single value.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Chen-Kompella, as evidenced by Breitbart.

In an analogous art, Breitbart discloses a system for communicating files over a communications network and a replication directly maintained servers where the servers communicate with each other to create and delete replicas of files (see Abstract). Breitbart further discloses combining mean latency with reliability of the estimate into a single metric (see column 7, lines 34-39). At the time of the invention, a person having ordinary skill in the art would have found it obvious to combine two values such as delay and jitter into a single value in order to simplify the monitoring of network performance.

8. Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen-Kompella as applied to claim 1 above, and further in view of Engbersen et al. (US 5,271,000), herein referred to as Engbersen further in view of Aoki et al. (US 6,757,255), herein referred to as Aoki.

Although the system disclosed by Chen-Kompella shows substantial features of the claimed invention (discussed above), it fails to disclose that the control data sent from the sender to the receiver instructs the receiver to initiate sending one or more measurement packets, to change one or more measurement packet sizes, inter-measurement packet transmission times and mix of packet sizes, and to stop sending one or more of the plurality of measurement packets.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Chen-Kompella, as evidenced by Engersen in view of Aoki.

In an analogous art, Engbersen discloses testing switching systems by sending test packets from one or more source nodes through the system to specific destinations that comprise a test packet analyzer (see Abstract). Engbersen further discloses a receiver receiving a start and stop control data to start and stop a time measurement for a packet (see column 25, lines 21-26).

Given the teaching of Engbersen, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Chen-Kompella by employing a start and stop control signal sent from a sender to receiver, such as disclosed by Engbersen, in order to gage the performance of network between the sender and receiver.

Although the system disclosed by Chen-Kompella-Engbersen shows substantial features of the claimed invention (discussed above), it fails to disclose instructing the receiver to change one or more of the measurement packet sizes, inter-measurement packet transmission times, and mix of packet sizes.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Chen-Kompella-Engbersen, as evidenced by Aoki.

In an analogous art, Aoki discloses a system a TCP communications performance measuring device (see Abstract) that changes one or more measurement packet sizes to accommodate for different maximum transmission units of different routers on the communication path (see column 11, lines 47-55).

Given the teaching of Aoki, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Chen-Kompella-Engbersen by employing a change to one or more of the measurement packet sizes, such as disclosed by Aoki, in order to determine the maximum segment size that the routers in the communication path can handle.

9. Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen-Kompella as applied to claim 1 above, and further in view of Kogan et al. (US 6,751,661), herein referred to as Kogan.

As per claim 52, Chen-Kompella discloses that the data comprises network information retrieved from network routers (see column 7, lines 17-20).

Although the system disclosed by Chen-Kompella shows substantial features of the claimed invention (discussed above), it fails to disclose that the network information comprises one or more of in-bound link utilization, out-bound link utilization, in-bound link bandwidth, out-bound link bandwidth, and CPU utilization.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Chen-Kompella, as evidenced by Kogan.

In an analogous art, Kogan discloses comparing mean access router uplink utilization to a prescribed threshold value that is computed base upon granular measurements of uplink utilization (see Abstract). Kogan further discloses network information retrieved from network routers is out-bound link utilization (see column 2, lines 50-55, *describing monitoring uplink utilization i.e. outbound link utilization, at an Access Router*).

Given the teaching of Kogan, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Chen-Kompella by employing network information such as uplink utilization, such as disclosed by Kogan, in order to provide a predictive method for maintaining customer bandwidth fulfillment.

Response to Arguments

10. Applicant's arguments filed April 14, 2008 have been fully considered but they are not persuasive.

A) Applicant contends that Kompella does not disclose control data directing a receiver of the measurement packet to change one or more configuration parameters of the receiver.

In considering A), the Examiner respectfully disagrees. Kompella was merely used to show that it would be obvious to affect a receiver with control data to change configuration parameters of the receiver. Chen has already taught the necessary limitation of a receiver of a measurement packet (see column 7, lines 6-8, *where management packets serve the purpose of measurement packets since they measure end-to-end QoS*). Kompella shows that control data could be sent to a receiver to cause the receiver to perform an action i.e. change configuration parameters. It would be obvious to one of ordinary skill to include the control data within the measurement packet taught by Chen in order change a few parameters (such as to reduce jitter) that the measurement packet revealed about the network. Even though the user application of Kompella is used to transmit data, the claim merely requires control data directing a receiver of the measurement packet to change one or more configuration parameters of the receiver. The Examiner believes that there is a difference between directing a receiver to do something and causing a receiver to do something. Directing merely suggests guiding or giving directions to. In this case, Kompella shows that a user application receiving control data that directs the user application to change the coding method to reduce bandwidth, or packing more signal samples into the same sample packet to reduce the effects of jitter because the recipient is guided or given directions on to how to resolve the parameter violation (see 8, lines 50-55). Even still, the Examiner believes that the control data taught by Kompella causes the receiver to change the configuration parameters. The user application determines the best action to take in response to the parameter violation, and then goes on to make actual changes that are necessary to accommodate the violation of the previous parameters (see column 8, lines 50-62).

B) Applicant contends that Kompella's principle of operation would change if combined with Chen.

In considering B), the Examiner respectfully disagrees. Kompella was used to modify Chen. Therefore, Chen is being modified by Kompella to have its measurement packets control a receiver of the measurement packets. Kompella's mode of operation would not change because Kompella is not being modified.

C) Applicant contends that combining a value and its reliability, as Breitbart teaches, is completely different from combining two separate metrics.

In considering C), the Examiner respectfully disagrees. Breitbart show that it is obvious to combine mean latency (i.e. delay) with reliability of its estimate into a single metric (see column 7, lines 34-39). The claim limitation requires combining delay and jitter averages into a single value. Since Breitbart shows combining two entities into a single metric, the Examiner believes that at the time of the invention, a person having ordinary skill in the art would have found it obvious to combine any two entities into a single metric. One of ordinary skill in the art would find it obvious to substitute the reliability of the estimate with another well known entity to combine two entities into a single metric. In this case the reliability of the estimate would be substituted with a jitter average.

D) Applicant contends that Suzuki does not disclose performing three different functions.

In considering D), the Examiner respectfully concedes. However, a new ground of rejection has been made with Engbersen in view of Aoki. Please see rejection above.

E) Applicant contends that the cited prior art does not disclose the limitations of claim 52.

In considering E), the Examiner respectfully concedes. However, a new ground of rejection has been made with Kogan. Please see rejection above.

F) Applicant contends that none of the prior art discloses sending and receiving are performed on a single device configured to change one or more configuration parameters in response to receiving control data.

In considering F), the Examiner respectfully disagrees. Chen-Kompella disclose that sending and receiving are performed on a single device (see Chen column 7, lines 65-67, *describing how a switch sends and receives i.e. a packet arrives (receiving), and a packet departs (sending), configured to change the one or more configuration parameters in response to receiving control data (*see Kompella column 8, lines 40-50, *where control data changes one or more configuration parameters at a single device). It would be obvious to one of ordinary skill in the art that the principle of controlling a device for QoS reasons could be applied to a switch such as taught by Chen to control network characteristics such as bandwidth and jitter.*

G) Applicant contends that the prior art does not disclose that measurement statistics are at least partly responsive to jitter, delay and loss.

In considering G), the Examiner respectfully disagrees. Kompella discloses measurement statistics partly responsive to jitter in column 7, lines 44-49, and Chen discloses that measurement statistics are partly responsive to delay and loss in column 7, lines 50-57.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHILIP J. CHEA whose telephone number is (571)272-3951. The examiner can normally be reached on M-F 6:30-4:00 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Philip J Chea
Examiner
Art Unit 2453

/Philip J Chea/
Examiner, Art Unit 2453
1/29/09